

**County of Loudoun**  
**Department of Planning**  
**MEMORANDUM**

**DATE:** April 13, 2007

**TO:** Stephen Gardner, Project Manager  
Land Use Review

**FROM:** Joe Gorney, AICP, Senior Planner  
Community Planning

*YG*

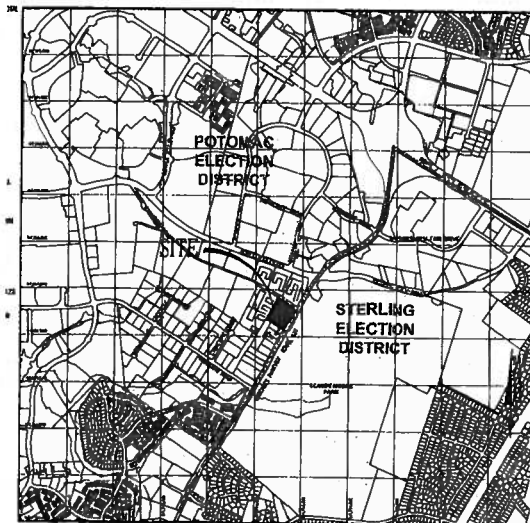
**SUBJECT:** ZMAP 2006-0025, SPEX 2006-0031  
Cascades Center, 1<sup>st</sup> Referral

**BACKGROUND**

Arlen, LC, requests a Zoning Map Amendment to convert one parcel of 1.61 acres from PD-IP (Planned Development – Industrial Park) under the 1972 Zoning Ordinance to PD-IP under the Revised 1993 Zoning Ordinance and a Special Exception to permit approximately 92,000 square feet of office uses on five parcels in the PD-IP Zoning District over 5.28 acres with a Floor Area Ratio (FAR) of 0.40. All five properties are contained within the Route 28 Tax District.

The properties are located on the southwestern quadrant of the intersection of Maries Road (Route 638) and Cascades Parkway (Route 637) across the street from the Claude Moore Park.

**VICINITY MAP**



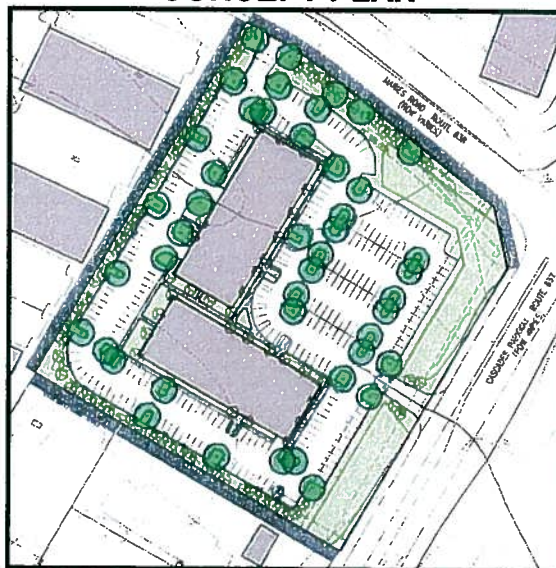
The properties are surrounded on the north, west, and south sides by properties zoned PD-IP. Flex-industrial warehouses are located to the north and west of the site. A house currently used for business uses is located on the south side of the property. Claude Moore Park is adjacent to the property on its east side and across Cascades Parkway.

### **SURROUNDING USES**



The applicant proposes two (2) three-story buildings, approximately 220 by 89 feet each, and a total Floor Area Ratio (FAR) of 0.40.

### **CONCEPT PLAN**



A review of County GIS records indicates wetlands and forest resources on site. The requirement for an archaeological study was waived by the Planning Department as part of the application due to the small size of the properties, the shallow depth to bedrock, and the perched water table.

## COMPLIANCE WITH THE COMPREHENSIVE PLAN

The site is governed under the policies of the Revised General Plan, the Bicycle and Pedestrian Mobility Master Plan (BPMMP), the Countywide Transportation Plan (CTP), and the Eastern Loudoun Area Management Plan (ELAMP). Being newer than the ELAMP, the Revised General Plan supersedes the ELAMP when there is a policy conflict between the two (Revised General Plan, text, p. 1-3). The subject property is located in the Sterling Community of the Suburban Policy Area and is designated as a Keynote Employment Area.

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## ANALYSIS

### LAND USE

#### Keynote Employment

Keynote Employment areas are intended as large-scale regional office developments with high visual quality to include office parks, research and development parks, corporate headquarters, and other large scale uses (typically 40,000 gross square feet or greater). Developments will be single-use and include the ancillary services necessary to support the predominant office use (Revised General Plan, Policy 1, p. 6-28). Keynote Employment centers typically feature a single user contained within a single larger building or complex of larger buildings. America Online, Verizon, and the Howard Hughes Medical Institute offer examples of Keynote Employment Centers in the County. Keynote centers do not permit a residential component (Revised General Plan, text, p. 6-27). The land use mix, measured as a percentage of the land area, in a Keynote Employment area will generally comply with the following ratios:

Land Use Category	Minimum Required	Maximum Permitted
Regional Office	70%	85%
Commercial Retail & Services	0%	10%
Public & Civic	5%	no maximum
Public Parks & Open Space	10%	no maximum

(Revised General Plan, Policy 4, p. 6-28)

The applicant proposes a FAR of 0.40 and approximately 92,000 square feet of office uses within the 5.28-acre area. Information has not been provided regarding the intended user or users of the site.

Some open space is provided but not of the types or in the amount anticipated by County policies, as discussed below. No public or civic uses are proposed.

***The proposed office uses conform to County land use policies. Staff recommends, however, that the applicant provide information regarding the intended user or users of the proposed office buildings. Staff recommends that the applicant consider a single user within a single larger building.***

### **Public & Civic Uses**

A minimum of 5 percent of the land in Keynote Employment areas shall be dedicated to public and civic uses (Revised General Plan, Policy 4, p. 6-28). The applicant has not provided any of these features. Staff notes, however, that the development is located across the street from the 357-acre Claude Moore Park, a major public use with 11 miles of trails.

***Based on the limited size of the site and the adjacency of the 357-acre Claude Moore Park, the Claude Moore Park may be appropriate to fulfill the civic use needs of the development. If the Claude Moore Park is to fulfill the civic use needs of the development, staff recommends that the applicant demonstrate safe and adequate pedestrian connectivity with the park and depict pedestrian routes on the Concept Plan.***

### **Open Space**

Open space areas may be in the form of woods, wet ponds, parks, gardens, trails, street-scape areas, and other natural or constructed features that function as amenities for a planned development's employees. Areas such as perimeter buffers, stormwater management facilities, and leftover edges and corners of properties do not meet the County's objective of providing usable open space (Revised General Plan, text, p. 6-10).

Other than the leftover perimeter buffer areas and a 50-foot wide tree save area, primarily of Virginia Pine, along Cascades Parkway and a portion of Maries Road, the applicant has not proposed open space in the development. Although the applicant ultimately anticipates between 180 and 270 employees, the current proposal does not afford these employees usable outdoor spaces.

***Staff recommends that the applicant develop open spaces that can be utilized by the expected 180 to 270 employees of the site. The placement of the open spaces should consider the issues listed below, including water quality and water quantity control measures.***

## EXISTING CONDITIONS

The property contains a number of green infrastructure resources including wetlands and tree resources. Land use planning and development are to respect and preserve the holistic nature of these elements (Revised General Plan, Policy 2, p. 5-2).

### Wetlands

The development is contained within the Broad Run watershed, which flows into the Potomac River. A preliminary wetland and stream evaluation of the site identified approximately 0.22 acres of forested wetlands. This resource has many functions: it filters runoff and land-based pollution, filters airborne pollutants and produces oxygen (where riparian forests are encouraged), keeps water temperatures cool, stores flood waters and reduces floodway velocities, serves as a groundwater recharge area, provides food and habitat for fish and wildlife, and improves overall water quality (Revised General Plan, text, p. 5-5). The County supports the federal goal of no net loss to wetlands (Revised General Plan, Policy 23, p. 5-11).

The applicant's proposal would eliminate all of the on-site wetlands.

***Staff recommends that the applicant incorporate the on-site wetlands into the design of the project so that the wetlands area is enhanced and preserved. Staff recommends that the wetlands be integrated into an open space amenity.***

### Steep & Moderately Steep Slopes

County policies call for a prohibition of land disturbance on slopes with a grade of more than 25 percent and special performance standards to protect slopes with grades from 15 to 25 percent. Performance standards can include best management practices, locational clearances for clearing and grading, and avoidance of natural drainageways (Revised General Plan, Policies 1 & 3, p. 5-26). Such consideration gives the County some assurance that steep and moderately steep slopes and their associated resources, such as surface waters, forests, and wetlands, will be protected.

A limited area of moderately steep slopes is located on the southwestern boundary of the project area. The applicant's design depicts a small landscape and parking area in the moderately steep slope area. The design does not appear to take the slopes into consideration.

***Staff recommends that the applicant consider a design that respects the integrity of the moderately steep slope area. If the applicant intends to intrude into the area, the applicant should explain what special performance standards or treatments are proposed for the area.***



## Forest Resources

County policies require tree conservation plans for developing parcels at the time of the initial land development application (Revised General Plan, text, p. 5-32). Overall, County policies encourage the preservation of existing vegetation and wildlife habitat on developing properties (Revised General Plan, Policy 10, p. 5-33).

### TREE EDGE ALONG MARIES ROAD



The site is almost completely wooded. Sheet 2 of the Concept Plan depicts general areas of predominant tree species and their general condition ratings. Virginia Pine is the predominant species and, as mentioned in the Environmental Review Team (ERT) Referral, dated February 5, 2007, is prone to wind throw. The applicant has proposed an approximately 50-foot wide tree save area along Cascades Parkway where the condition rating of the trees is listed as "Fair to Poor." The proposed tree save area does not appear to contain most of the more desirable species of Red Maple or Pin Oak, which generally surround the wetlands area, whose condition is described as "Good to Fair" (Concept Plan, Sheet 2, September 27, 2006). The tree save area also contains utility easements and is the most likely area for shared-use paths and sidewalks.

***Due to the hazards of wind throw, the narrow width of the proposed tree save area, the condition rating of the tree resources, the type of species in the area, the presence of a utility easement, and the need for a shared-use path and sidewalk, staff recommends that the applicant reconsider the location and makeup of tree save areas. The applicant should consult with the County Forester regarding species types, stocking densities, and, depending on their condition, whether the resources are worth preserving. Depending on their***

***condition, the applicant should consider integrating these trees into the development.***

### **Water Quality and Quantity Control Measures**

Site runoff is a concern for downstream streams and waterways. As part of its surface water policies, it is the intent of Loudoun County to minimize the creation of new impervious areas and to minimize increases in post-development runoff peak rate, frequency, and volume (Revised General Plan, Policy 16, p. 5-18). As with wetlands areas, streams can be damaged as they take in stormwater from traditional stormwater collection systems, which transport water in higher volumes and at greater velocities than natural systems. The rushing water causes streambed scouring and the erosion of stream banks. Such erosion can also cause property damage. Additionally, discharged stormwater carries pollutants deposited on impervious surfaces, such as litter, road salt, and oil, grease, and metals from automobiles, directly to the streams with a resultant degradation of the health of aquatic life (Revised General Plan, text, p. 5-12).

An underground storm water management facility is proposed in the southwest corner of the site under a parking area. A connection is proposed from the underground facility to an existing 36-inch storm sewer on the adjacent Cascades Business Center, Phase 1 (Concept Plan, Sheet 6). Stormwater then travels to Cabin Branch, Broad Run, and the Potomac River.

***Staff recommends that water treatment measures be employed that mimic the pre-development conditions of the site, mitigate impacts to the watershed, and treat the stormwater runoff as a viable part of the open space system and an amenity for the development. As part of these measures the applicant could consider various site measures, such as green roofs, rain gardens, cisterns, and planted swales, to promote infiltration on-site, minimize peak storm flows, and help filter non-point source pollutants.***

### **SITE DESIGN**

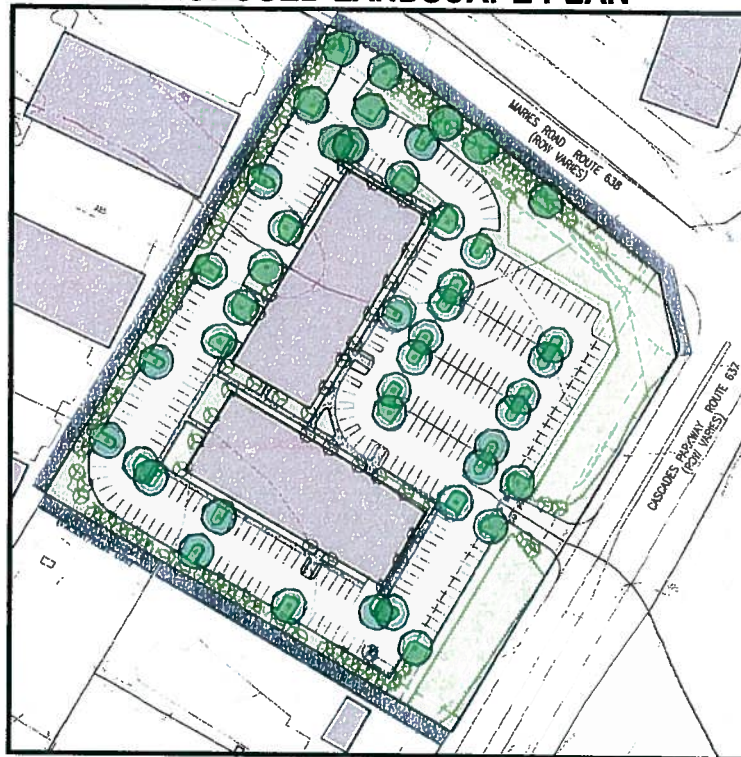
#### **Building Placement, Building Form, and Parking**

Keynote Employment areas are to exhibit the highest quality in site and building design consistent with the existing conditions and the land use policies of the Revised General Plan. As stated previously, Keynote Employment developments normally will maintain larger front and side yards to permit extensive landscaping and design features that accentuate the larger-scale structures (Revised General Plan, Guidelines 7a & 7b, pp. 11-13 to 11-15). Parking is to be placed behind buildings, moved to the center of the block, and shared. Given their intensity, the County encourages structured parking for Keynote areas. Parking structures should also be placed in the middle of the block and screened from the street (Revised General Plan, Guideline 7b, p. 11-15 & Policy 5, p. 6-28). Parking requirements should not be exceeded (Revised General Plan, Policy 1, p. 6-30).

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The current design generally calls for centrally placed buildings surrounded by parking. The applicant proposes two (2) three-story buildings, approximately 220 by 89 feet each. Trees are generally proposed in small landscaped islands.

#### PROPOSED LANDSCAPE PLAN



***Staff recommends that the project area include high-quality architectural features and enhanced landscape areas per Plan policy. The applicant should provide illustratives of the intended architectural features and describe the materials to be used. The applicant should also describe how landscape features and materials will be integrated into the design.***

***Staff also recommends that buildings be positioned to create a courtyard or open space feature for employees. In addition, the applicant should consider incorporating wetlands as a year-round amenity as part of the open space.***

***Staff recommends that parking be placed behind buildings in conformance with Plan policies. Any parking structures should exhibit a high architectural quality and be placed behind the buildings. The applicant should also consider gateways, walls, or other design elements along both street frontages, along with enhanced landscape plantings.***

#### **Bicycle & Pedestrian Facilities**

The project site is bordered by Cascades Parkway to the east and Maries Road to the



north. Cascades Parkway is a Baseline Connecting Roadway for the County Bicycle and Pedestrian Network (BPMMP, East Loudoun County Network Map). Baseline Connecting Roadways are to integrate bicycle and pedestrian accommodations as part of the land development process and are to include shared-use paths. Shared-use paths are to be 10 feet wide and paved (BPMMP, text, p. 42, & Policy 1, p. 46). Other roads, as a minimum, will have sidewalks on both sides, with widths from 5 to 6 feet. Vegetated buffers shall also be provided between roads and sidewalks. Six-foot wide sidewalks will feature 4-foot wide vegetated buffers (BPMMP, Policy 2, p. 31).

Overall, all land development applications are to provide bicycle, pedestrian, and transit access linkages to the Network (BPMMP, Policy 5, p. 33). Additionally, applications are to feature bicycle and pedestrian access through the development in various directions to prevent it from becoming a barrier between other trip origins and destinations in the community (BPMMP, Policy 6, p. 33). All bicycle facilities will be designed in accordance with nationally accepted design guidelines established by organizations such as American Association of State Highway and Transportation Officials (AASHTO).

As an undeveloped site, the project area features no pedestrian or bicycle connections. Roadway frontages have dirt trails, where pedestrians have worn paths in the grass along property frontages. The intersection of Cascades Parkway and Maries Road is currently unsignalized with no crossing facilities.

#### **DIRT PATH ALONG CASCADES PARKWAY**



The Concept Plan shows no bicycle or pedestrian facilities.

***Staff recommends that the applicant provide a 10-foot wide shared-use path along Cascades Parkway and a 6-foot wide sidewalk along Maries Road. Vegetated buffers of at least 4 feet should be provided between these facilities and the adjacent roadways. Staff recommends that the applicant consult with the***

***Office of Transportation Services (OTS) on the design of bicycle and pedestrian facilities. In conjunction with the installation of a traffic signal at the intersection of Cascades Parkway and Maries Road, as recommended by OTS, the applicant should install appropriate intersection treatments so that employees can safely cross Cascades Parkway to the adjacent Claude Moore Park and its trail system. Overall, safe pedestrian and bicycle links should be provided within the proposed development, along property frontages, into the development, and to adjacent parcels.***

### **Lighting**

County policies call for appropriate lighting to improve visibility and enhance public safety while precluding unnecessary and intrusive light trespass (Revised General Plan, Policy 1, p. 5-42).

In their Statement of Justification the applicant writes that "[o]ther adjacent developed sites are now lighted at night in a very similar manner to that which we plan," without commitments to precluding light trespass.

***Because lighting has the potential to degrade the nighttime environment, particularly given the presence of Claude Moore Park, staff recommends that the applicant utilize lighting that is downward directed, is fully shielded, provides a glare free environment, is confined to the site, and has illumination levels that are no greater than necessary for a light's intended purpose. All lighting should be designed to preclude light trespass onto adjoining properties, glare to passersby, skyglow, and deterioration of the nighttime environment. Like other architectural features, the applicant should provide illustratives of the lighting elements and commit to their installation.***

### **ZONING CONVERSION**

The applicant seeks to convert one of the five parcels from the 1972 Zoning Ordinance to the Revised 1993 Zoning Ordinance. The County encourages property owners in the Route 28 Tax District to convert to the revised zoning ordinance (Revised General Plan, Policy 14, p. 4-10).

***Staff supports the conversion from the 1972 Zoning Ordinance to the Revised 1993 Zoning Ordinance.***

### **RECOMMENDATIONS**

While the proposed office uses conforms to County land use policies, several other issues should be addressed in order for the application to fully conform to County policies. Staff recommends that the applicant address the following:

- Provide information regarding the intended user or users of the proposed office

buildings. Consider a single user within a single larger building;

- Demonstrate safe and adequate pedestrian connectivity with the park and depict pedestrian routes on the Concept Plan;
- Develop open spaces that can be utilized by the expected 180 to 270 employees;
- Incorporate the on-site wetlands into the design of the project so that the wetlands area is enhanced and preserved;
- Consider a design that respects the integrity of the moderately steep slope area;
- Reconsider the location and makeup of tree save areas;
- Employ water treatment measures that mimic the pre-development conditions of the site, mitigate impacts to the watershed, and treat the stormwater runoff as a viable part of the open space system and an amenity for the development;
- Commit to design practices that meet the intent of Keynote Employment policies;
- Provide a 10-foot wide shared-use path along Cascades Parkway and a 6-foot wide sidewalk along Maries Road. Provide vegetated buffers of at least 4 feet between these facilities and the adjacent roadways. In conjunction with the installation of a traffic signal at the intersection of Cascades Parkway and Maries Road, install appropriate intersection treatments so that employees can safely cross Cascades Parkway to the adjacent Claude Moore Park and its trail system; and,
- Utilize lighting that is downward directed, is fully shielded, provides a glare free environment, is confined to the site, and has illumination levels that are no greater than necessary for a light's intended purpose.

Staff is available to meet with the applicant to discuss these issues.

Cc: Julie Pastor, AICP, Director, Department of Planning  
Cindy Keegan, AICP, Program Manager, Community Planning

**County of Loudoun**  
**Department of Planning**  
**MEMORANDUM**

**DATE:** June 26, 2007

**TO:** Stephen Gardner, Project Manager  
Land Use Review

**FROM:** Joe Gorney, AICP, Senior Planner *JG*  
Community Planning

**SUBJECT:** ZMAP 2006-0025, SPEX 2006-0031  
Cascades Center, 2<sup>nd</sup> Referral

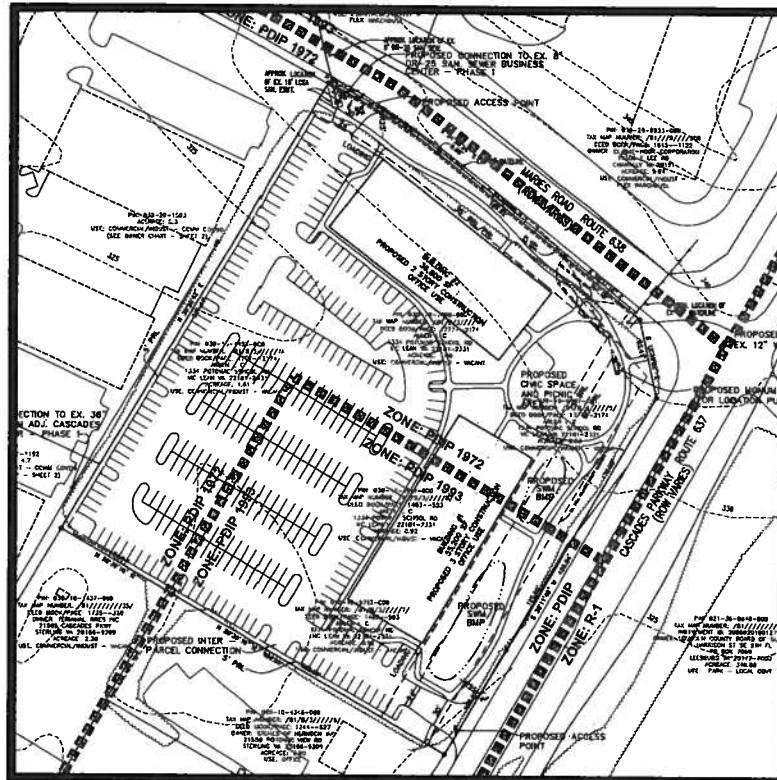
**BACKGROUND**

Arlen, LC, requests a Zoning Map Amendment to convert one parcel of 1.61 acres from PD-IP (Planned Development – Industrial Park) under the 1972 Zoning Ordinance to PD-IP under the Revised 1993 Zoning Ordinance and a Special Exception to permit approximately 92,000 square feet of office uses on five parcels in the PD-IP Zoning District over 5.28 acres with a Floor Area Ratio (FAR) of 0.40. The properties are located on the southwestern quadrant of the intersection of Maries Road (Route 638) and Cascades Parkway (Route 637) across the street from the Claude Moore Park. All five properties are contained within the Route 28 Tax District and located within the Keynote Employment planned land use area.



**SURROUNDING USES**

The applicant proposes two (2) buildings, approximately 220 by 90 feet each. The eastern building, Building #1, is proposed as a three-story building. The northern building, Building #2, is proposed as a two-story building.



**CONCEPT PLAN**

In response to the First Referral, dated June 15, 2007, the Applicant has reconfigured the buildings and the parking. Buildings are now placed along Cascades Parkway and Maries Road. Parking has been placed behind the buildings. The CDP includes an inter-parcel connection to the property to the south. The Applicant has also designed a right-in, right-out connection onto Cascades Parkway at the southern-most corner of the property. Another entrance is planned along Maries Road.

Below is a discussion of outstanding issues.

### **COMPLIANCE WITH THE COMPREHENSIVE PLAN**

The site is governed under the policies of the Revised General Plan, the Bicycle and Pedestrian Mobility Master Plan (BPMMP), and the Countywide Transportation Plan (CTP). The subject property is located in the Sterling Community of the Suburban Policy Area and is designated as a Keynote Employment Area.



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## OUTSTANDING ISSUES

### OPEN SPACE

The Concept Development Plan (CDP) depicts a picnic area and open space in the northeast corner of the site near the intersection of Cascades Parkway and Maries Road. A monument sign is planned in the open space near the intersection. The CDP states that site construction is to be completed in two (2) stages and that all common open space amenities will be provided during the initial phase (CDP, Sheet 1, Note 15). The applicant states in their Response to First Referral Comments that picnic tables will be provided. Neither the CDP nor the proffers, however, specify the amenities to be placed in the open space. Due to the proximity of the two roads, staff is concerned about roadway impacts to users of the space.

***Staff recommends the following so that the open space will be an inviting and utilized space for the expected 180 to 270 employees of the site:***

- ***Incorporate low berms, vegetation, a loggia, an overhead arbor, curved seat walls, or other linear elements to screen the picnic area, to limit the exposure of employees to roadway noise, fumes, and traffic views, and to provide a sense of enclosure;***
- ***Provide an ample number of benches and other outdoor furniture throughout the open space;***
- ***Consider the inclusion of a pavilion; and,***
- ***Commit to the open space amenities, vegetation, and building materials in the CDP and the proffers.***

### SITE DESIGN

#### Building Placement, Building Form, and Parking

The current design proposes two (2) buildings, approximately 220 by 90 feet each. The northern building (Building #2) is proposed as two (2) stories and the eastern building (Building #1) as three (3) stories. In the First Submittal the applicant proposed under-building parking for one of the proposed buildings. The under-building parking has been eliminated as part of the current submittal. The CDP includes a photograph of a typical building.

In the First Referral, staff recommended that the applicant shift the buildings toward the roadways and place the parking behind the buildings in conformance with Keynote Employment policies. The Applicant responded by pulling the buildings closer to Cascades Parkway and Maries Road and by placing the parking behind the buildings. Staff supports the new placement of the buildings, which helps to define the corner, the roadway corridor, and the open space.

Buildings within Keynote Employment areas are expected to be of high visual quality.

The Applicant has not, however, committed to specific architectural features to ensure high visual quality.

Additionally, the CDP shows 323 parking spaces, while the development plans to have only 180 to 270 employees. Even allowing for deliveries and visitors, the site appears to contain an excessive amount of parking.

***Staff recommends the following:***

- ***Eliminate any unneeded parking spaces and consider under-building parking to limit impervious surfaces;***
- ***Consider making Building #2 three (3) stories tall, which would allow a smaller footprint. The access road from Maries Road could then be shifted slightly to the east, allowing a larger buffer along the western property line, which could also include all or a portion of the approximately ¼-acre wetlands area;***
- ***Incorporate high-quality architectural features and materials and commit to their use; and,***
- ***Avoid flat facades through the use of recesses and other architectural treatments.***

**Landscape Design**

The development is contained within the Broad Run watershed, which flows into the Potomac River. A preliminary wetland and stream evaluation of the site identified approximately 0.22 acres of forested wetlands. The applicant's proposal would eliminate all of the on-site wetlands and alter the current drainage pattern. Trees are generally proposed in individual landscaped islands. Five-foot buffers are proposed along the western and southern boundaries. Such buffers may not be sufficiently wide to ensure the viability of a tree or large shrub. To be of sufficient width, planting areas should extend to a mature tree's dripline. Under the proposed plan, branches and roots from large shade trees could also extend across property lines creating conflicts with adjacent uses.

Wet ponds are also proposed on the eastern upslope portion of the site along Cascades Parkway but would not treat the runoff from the parking lots, which would flow to the west.

***Staff recommends that the application be revised as follows:***

- ***Increase the width of the western and southern buffers to provide screening from the surrounding uses, to help ensure the viability of the planted trees and shrubs, and to promote the preservation of the wetlands areas. If the partial destruction of the wetlands cannot be avoided, design a system to replicate the functionality of the wetlands through the use of on-site bio-retention and grassed swales;***
- ***Commit to enhanced plantings within buffers;***
- ***Treat the surface runoff from the parking lot prior to channeling it into the storm sewer system;***

- ***Design depressed planting beds between rows of parking to allow sheet flow and water infiltration across these areas;***
- ***Increase the size of any parking lot planting islands for increased plant vigor and viability. Design curb cuts to these areas;***
- ***Consider gateways, seat walls, or other design elements along both street frontages;***
- ***In the proffers and the CDP, commit to the construction of the wet ponds as year-round amenities. Include tall grasses and perennials around the wet ponds so that geese are discouraged;***
- ***Consider underground water storage, which could be used for on-site irrigation; and,***
- ***Consider various site measures, such as green roofs, rain gardens, cisterns, and planted swales, to promote infiltration on-site, minimize peak storm flows, and help filter non-point source pollutants.***

### **Bicycle & Pedestrian Facilities**

The applicant proposes 5-foot wide sidewalks along both Cascades Parkway and Maries Road. The 5-foot sidewalk along Cascades Parkway is only half of the 10-foot width anticipated in County policies for Baseline Connecting Roadways.

The applicant has committed to an appropriate shared contribution for signalization and crossing facilities to the Claude Moore Park. The applicant has also stated that they will provide a bike rack.

#### ***Staff recommends the following:***

- ***Provide a 10-foot wide shared-use path along Cascades Parkway and a 6-foot wide sidewalk along Maries Road per Plan policies. Include vegetated buffers of at least 4 feet between these facilities and the adjacent roadways;***
- ***Depict crossing facilities to the Claude Moore Park and across Maries Road on the CDP. Include a pedestrian median refuge for the Cascades Parkway crossing; and,***
- ***Create pedestrian pathways through the parking lots to the buildings.***

### **Lighting**

In their Statement of Justification the Applicant writes that “[o]ther adjacent developed sites are now lighted at night in a very similar manner to that which we plan.” The Applicant also agrees to meet Zoning Ordinance requirements. Because the site is in the Keynote Employment planned area, a higher standard of design is expected than the minimum standards of the Zoning Ordinance.

#### ***Staff recommends the following:***

- ***Commit to lighting that is fully shielded so that the direct glare of the bulb is not visible at or beyond the outer property line of the site;***
- ***Commit to light elements (lamp or globe) that do not extend below the cutoff***

- *shield; and,*  
• ***Commit to no illumination of the monument sign.***

## **RECOMMENDATIONS**

While the proposed office use generally conforms to County land use policies, several outstanding issues should be addressed for the application to fully conform to County policies. Community Planning staff cannot support the application until the outstanding issues have been resolved.

Staff is available to meet with the Applicant to discuss these issues.

Cc: Julie Pastor, AICP, Director, Department of Planning  
Cindy Keegan, AICP, Program Manager, Community Planning



**Building & Development**  
**ZONING ADMINISTRATION**

DATE: February 20, 2007  
TO: Stephen Gardner, Project Manager, Planning Division  
THRU: Marilee L. Seigfried, <sup>mer</sup>Deputy Zoning Administrator  
FROM: Diane B. Ferrall, <sup>DBF</sup>AICP, CZA, PRS-ESI

PARCELS:	LCTM	MCPI
	/81/B/3////7	030-10-5763-000
	/81/B/3////7A	030-10-4490-000
	/81/B/3////8/	030-10-5867-000
	/81/B/3////9/	030-10-6987-000
	/81/B/3////10/	030-10-7090-000

RE: Cascades Center ZMAP-2006-0024/SPEX-2006-0031 - 1ST SUBMISSION

**CRITICAL ISSUES**

**Sec.6-1200 Rezoning:** The property is located within the Rt.28 Taxing District (Rt.28 District) and is protected by Section 1-103(N) as required by State law. Parcels within the Rt.28 District are either governed by the 1972 *Loudoun County Zoning Ordinance* (72 Ordinance), the 1993 *Loudoun County Zoning Ordinance* (93 Ordinance), or the *Revised 1993 Loudoun County Zoning Ordinance* (Revised 93 Ordinance). It is imperative that applications within the Rt.28 District are properly enacted by the County. It is the County's adopted policy that all property within the Rt.28 District convert to the Revised 93 Ordinance. County records indicate that the subject parcels 7 and 8 have opted into the 93 Ordinance, and that parcels 7A, 9 and 10 remain under the 1972 Ordinance.

The submitted application materials are incorrect, incomplete and inconsistent as to the current Zoning Ordinance regulations that apply to the property. The materials are also inconsistent as to the Ordinance to which the applicant wishes the property to be reviewed under. As currently shown, the plan seems to show that only parcel 7A will be rezoned and that the other parcels are already 1993, and that is not correct. The rezoning plat must correctly show the existing zoning and the proposed zoning. Since this property is within the Rt.28 District, it is essential that the applicant provide a separate ZMAP concept development plan (CDP) from the proposed office special exception (SPEX) plat.

The submitted narrative only answers the SPEX criteria of Sec.6-1310 (A) through (T) as listed in the Revised 93 Ordinance for the proposed office use in the PD-IP District (Planned Development - Industrial Park) regulated by Sec.4-500.



The applicant must also submit a statement of justification narrative and land development application form that correctly identifies the Zoning Ordinance that currently applies to each parcel and the proposed Zoning Ordinance that is the subject of the applicant's rezoning (ZMAP) for the property. The applicant must also provide answers to the sixteen (16) ZMAP criteria listed in Sec.6-1211(E).

If there is a concern regarding potential PD-IP uses, consideration should be given to condition out uses that are not compatible with the area.

**Sec.4-506 PD-IP Building Requirements:** FAR, lot coverage, landscaped open space, etc. requirements are based on the area of a lot by definition in Article 8. Although the plan view shows all 5 lot lines with shared parking noted, the site tabulation is based on a single lot. Either the lot lines must be adjusted prior to site plan approval, or all zoning requirements including all yard and building requirements as well as landscaping must be achieved for each lot. The SPEX plat must include a note to address this issue.

Both County records and sheet #5 indicate that the site contains 5.10 acres. However, the site tabulation on sheet #1 states that the site contains 5.28 acres. If additional dedication is required for road right-of-way or turn lanes prior to site plan approval, the site area will be reduced further. This discrepancy must be corrected since the proposed GFA will exceed the maximum permitted FAR and dedication area impacts all other area based zoning requirements.

**Sec.4-507(F) Vehicular Access:** This section states that principal vehicular access points shall be designed to encourage smooth traffic flow with controlled turning movements and minimum hazards to vehicular or pedestrian traffic, and the plan view must show that VDOT requirements and/or Office of Transportation Services recommendations can be achieved prior to site plan approval.

**Sec.4-507(G)(1) Access from Major Roads:** This section states that in designing an industrial park, certain requirements shall be observed, and the creation of new individual lots having direct access to a major collector road is prohibited. Although the plan shows an entrance to existing parcel 8, the zoning tabulations present a proposed single parcel. A consolidation of all the lots into a single individual lot is prohibited by this Section, unless a concurrent Zoning Ordinance Modification (ZMOD) is requested and approved to demonstrate that the public purpose of prohibiting multiple entrances on a major collector road (Cascades Parkway) is otherwise exceeded per Sec.6-1504. ZOAM-2006-0003 may amend if not eliminate this code limitation if it is adopted prior to approval of this conversion ZMAP/SPEX.

**Sec. 5-1400 Buffering and Screening:** The note on sheet #4 regarding use of the existing Type 4 buffer on the western adjacent property does not relieve the applicant from providing a buffer yard on their site. And an adjacent vacant site is not the same use as an office building as indicated by the note along the western part of the boundary to the south. These issues are typically addressed at the time of detailed site/landscape plan with a formal Zoning Determination / Waiver per the provisions of Sec.5-1409(F). The plan must be corrected to note that a Type 4 Buffer is required, unless the applicant requests a concurrent Zoning Ordinance Modification (ZMOD) with this ZMAP/SPEX proposal. The ZMOD request could use the criteria of Sec.5-1409(F) provided that the proposal shows that the public purpose of the buffer requirements are otherwise exceeded per Sec.6-1504 Modification criteria.

#### OTHER ISSUES

**Sec.4-505(B) PD-IP Required Yards:** Subparagraph (B)(3) requires a 15' required yard where proposed buildings and parking are adjacent to other non-residential districts that are not zoned PD-IP. The parcels adjacent to this property are zoned PD-IP, and the 15' yard is not required. The plan should be corrected to remove these 15' side yard labels.

Subparagraph (B)(4)(a) requires a 5' yard between both parking and driveways and property lines in the PD-IP District. In order to comply with the access limitations discussed above under Sec.4-507(G)(1), the future parcel boundary lines established prior to site plan approval must consider the proposed entrance location at Cascades Parkway so that the lot lines are further than 5' from proposed driveways and parking.

Subparagraph (B)(4)(a) also limits the distance between buildings provided that they are located on the same lot or on adjacent lots, at either 25 or 30 feet. The future parcel boundary lines established prior to site plan approval must consider these limitations as well.

**Sec.4-507(B) Landscaped Open Space:** This section requires a minimum landscaped open space of .20 times the buildable area of the lot, and the future parcel boundary lines established prior to site plan approval must consider this requirement.

**Sec.5-1200 Sign Regulations:** The proposed monument sign label must include "for location purposes only" since a separate sign permit is required prior to installation of signs.

**Sec.5-1300 Tree Planting and Replacement:** Note #23 on sheet #1 references PDH tree canopy standards and must be corrected to reference Sec.5-1303(A)(1) for PD-IP standards or replace the note with a general compliance with Sec.5-1300. Use of existing trees must meet the criteria of this section prior to site plan approval.

**Sec.5-1400 Buffering and Screening:** Sheet #4 presents a detailed landscape plan. This sheet should be labeled as "illustrative only" and the development will be expected to meet landscape zoning requirements prior to site plan approval.

Sec.5-1403(B) encourages the use of existing vegetation, and the plan proposes tree save areas. However, the landscape label along Cascades Parkway must note that a Type 2 Buffer is required. Adequacy of the tree save area must be demonstrated for compliance with buffer yard and peripheral parking planting prior to site plan approval, and supplemental plantings may be required at that time.



**Building & Development  
ZONING ADMINISTRATION**

DATE: June 15, 2007  
TO: Stephen Gardner, Project Manager, Planning Division  
THRU: Marilee L. Seigfried, Deputy Zoning Administrator  
FROM: Diane B. Ferrall, AICP, CZA, PRS-ESI  
RE: Cascades Center ZMAP-2006-0024/SPEX-2006-0031 – 2nd SUBMISSION

Zoning Administration has reviewed the referenced application for conformance with the *Revised 1993 Loudoun County Zoning Ordinance*. The following requirements remain outstanding:

There is a discrepancy in the proposed GFA between the statement of justification (91,800SF) and the SPEX plan (92,000SF).

There is also a discrepancy in the combined lot area. Note 4 on sheet 1 of the SPEX plan and sheet 1 of the ZMAP CDP both state 5.28 acres. However, the combined lot area according to County records is 5.10 acres. The proposed FAR cannot exceed .40 the area of the consolidated property.

The applicant proposes to provide a turn lane into the site from Cascades Parkway. This turn lane must be labeled on the SPEX/ZMOD plan view. It appears that the turn lane extends into the parcel boundary that would require ROW dedication with corresponding yards. The resulting parcel area reduction will impact area based zoning requirements.

The applicant proposes to consolidate the property into one lot with a single access point onto Cascades Parkway. This requires a modification of Sec.4-507(G)(1). This Section must be included in the modification notes on the SPEX/ZMOD plan view.

The ZMOD request note on sheet 1 for buffer yard relief is noted to apply only to the portion of the property adjacent to the Terminal Tiles Lot 35 (parcel 1437) to the southwest. The illustrative landscape plan shows landscaping that does not appear to comply with buffer yard requirements along the western boundary and along Cascades Parkway.

The SPEX/ZMOD plan view sheet must label all required buffer yards and all proposed modified buffer yards along all property lines.

The SPEX/ZMOD plan must describe all proposed modifications at all locations. The applicant's modification statement of justification must describe how this proposal design exceeds the public purpose by providing something superior to the intent of each Ordinance text section to be modified.

The "unless" clause regarding modification and waivers at the time of construction plan in the note on the bottom of the illustrative landscape plan must be deleted.

The SPEX/ZMOD plan sheet indicates that the 1972 and previous 1993 zoning apply to this property; and note 3 on sheet 1 states that the current zoning is under the 1972 and the previous 1993 Ordinance. However, the concurrent ZMAP proposes to convert the property to the Revised 1993. Therefore, the SPEX plan view and note 3 must indicate that the zoning is under the Revised 1993 Ordinance. Note 3 on the CDP should replace “shall comprise” with “shall comply” with the Revised 1993 Ordinance”.

The applicant proposes to contribute towards pedestrian access and a traffic signal at Cascades Parkway to provide a connection to Claude Moore Park. The pedestrian crossing and signal must be drawn and labeled on the SPEX/ZMOD plan. The pedestrian crossing must cross directly over Cascades Parkway (not diagonally into the intersection) in order to provide safe access for visually impaired pedestrians.

The applicant proposes to provide a picnic area with tables. The SPEX/ZMOD plan should also note the picnic tables to be provided.

The applicant proposes to provide a bike rack and a bike trail easement for future construction by others. The SPEX/ZMOD plan must note that a bike rack will be provided and must label the proposed bike trail public access easement and include the required easement width.

The SPEX/ZMOD plan sheets must be labeled Zoning Ordinance Modification (ZMOD). Sheet 1 of the SPEX/ZMOD plan should remove “rezoning conversion” since this document is a separate legislative act from the ZMAP CDP sheet.

The applicant proposes to comply with the lighting standards of Sec.5-652 that are not typically required of commercial office development. The SPEX/ZMOD plan must reference this Section if it is to be implemented at the time of site plan.

The applicant proposes to proffer digital wetlands data. The SPEX/ZMOD plan must include a note that this will be provided since this is a conversion rezoning without substantive proffers.

The draft proffers (Proffer 1) discuss minor adjustments to “improvements shown” on the CDP. There are no improvements shown on the CDP, and the language should be deleted.

The draft proffers include a typo reference to ZMAP-2005-0015 that should be corrected to reference this ZMAP-2006-0025.

Zoning staff requests an opportunity to review the applicant’s resubmission prior to approval.




**DEPARTMENT OF BUILDING AND DEVELOPMENT**

**COUNTY OF LOUDOUN**

**MEMORANDUM**

DATE: February 5, 2007

TO: Stephen Gardner, Planning Project Manager

FROM: William Marsh, Environmental Review Team Leader 

CC: Joe Gorney, Community Planner

**SUBJECT: ZMAP-2006-0025 and SPEX-2006-0031 Cascades Center**

The Environmental Review Team (ERT) reviewed the subject application during the January 16, 2007, ERT Meeting, followed by a site visit on February 2, 2007. Our comments pertaining to the current application are as follows:

*Regarding waters and wetlands*

1. The preliminary wetland report delineates a palustrine forested wetland on site, all of which would be disturbed with the application. As of last week, the US Army Corps of Engineers has not received this report, or any related permit request. Staff emphasizes the importance of mitigating unavoidable wetland and stream impacts in close proximity to the disturbed areas to help maintain water quality, flood protection, and habitat benefits. This approach is consistent with Policy 23 on Page 5-11 of the RGP which states that "the County will support the federal goal of no net loss to wetlands in the County." Preservation or mitigation of wetland disturbance is especially important in the Broad Run watershed, due to other development projects within the watershed. Finally, the County's strategy is to protect its existing green infrastructure elements and to recapture elements where possible (RGP, Page 6-8, Green Infrastructure Text).
2. The County is embarking on a project to map and inventory wetlands and cultural resources located within Loudoun County. We are requesting that the development community contribute digital data to this effort. Specifically, two separate digital data layers are requested, one depicting the Corps-approved wetland delineation (including jurisdictional waters and wetlands) and the other locating the sites identified in the Phase 1 Archaeological Survey, including the delineation of the respective study limits. Loudoun County's GIS uses ESRI software and can import .DXF data. Our coordinate system is Virginia State Plane. Datum NAD 83 data is preferable, if available. Metadata on the digital data (e.g., map scale, age, etc.) is also helpful. If this data cannot be provided

prior to approval of the application, staff recommends that a commitment be provided indicating when this data will be submitted to the County.

*Regarding forest resources*

3. Proposed tree save areas are shown where the existing forest cover is "fair to poor", per Sheet 2. The predominant species, *Pinus Virginiana*, is prone to wind throw and should not be preserved on this site. Staff recommends that the applicant consider replacing Virginia Pines with hardwoods. The county arborist is available to consult with regarding specie type and stocking density. Staff further recommends that the applicant consider incorporating a picnic area within the buffer yard so that employees can enjoy meals outdoors on pleasant days.

*Regarding stormwater management*

4. An underground Stormwater Management (SWM)/Best Management Practice (BMP) facility is depicted on the Concept Plan on Sheet 7. However, Item K.4. of the rezoning checklist requires the type of SWM/BMP facilities proposed to be identified on the Concept Development Plan. Given the high impervious ratio for this use, a BMP with 65-percent phosphorous removal should be chosen. Staff recommends that the applicant consider bioretention that is connected to an underground vault to store stormwater quantity. Staff further recommends that the applicant consider cistern storage of rooftop runoff that can be harvested for buffer irrigation.
5. Properly account for downstream effects of increased stormwater runoff. The proposed outfall includes separate segments of pipe networks and existing stormwater ponds that may not have been designed for the development. Sufficiently accounting for this constraint now can prevent the complication from arising later during the site plan review process.

Due to the scope of the comments provided, staff requests an opportunity to comment on the subsequent submission of this application. Please contact me if you need any additional information.

**DEPARTMENT OF BUILDING AND DEVELOPMENT**

**COUNTY OF LOUDOUN**

**MEMORANDUM**

DATE: June 27, 2007

TO: Stephen Gardner, Planning Project Manager

FROM: William Marsh, Environmental Review Team Leader

CC: Joe Gorney, Community Planner



**SUBJECT: ZMAP-2006-0025 and SPEX-2006-0031 Cascades Center**

The Environmental Review Team (ERT) reviewed the subject application during the January 16, 2007, ERT Meeting, followed by a site visit on February 2, 2007. Our comments pertaining to the second submittal of this application are as follows:

*Regarding waters and wetlands*

1. Staff recommends a commitment to preserving wetlands and waters of the US on site. ERT specifically recommends creating civic/picnic area space in the back of the site to take advantage of existing tree cover and the shielding from traffic noise provided by the buildings. The palustrine forested wetland could border a civic space/picnic area in the back of the site and provide shade while maintaining natural habitat, while the proposed civic space could be shrunk in size to meet minimum landscaping requirements for keynote employment areas. The County's strategy is to protect its existing green infrastructure elements and to recapture elements where possible (RGP, Page 6-8, Green Infrastructure Text).
2. Staff appreciates the applicant's willingness to provide digital data of wetlands and waters of the US prior to site plan approval, based on a jurisdictional determination from the US Army Corps of Engineers. Such a commitment shall be a condition of approval.

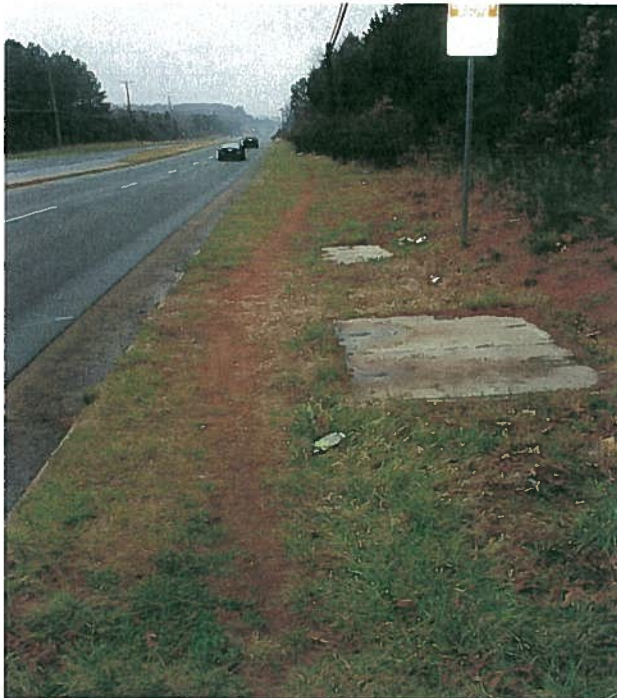
*Regarding stormwater management*

3. Given the high impervious ratio for this use, staff recommends a condition of approval requiring a minimum 65-percent phosphorous removal efficiency for the Best Management Practice design treating all of the impervious stormwater runoff emanating from this site. Further, staff concurs with planning recommendations to place some parking below the first floor of both buildings.

4. Because less than ten acres would drain to any pond to be built on this site, staff cautions against designing a wet pond BMP. The ten acre limit is a design standard in Section 3.06 of the Virginia Stormwater Management Handbook, where there is no spring or constant source of water to maintain a permanent pool in the pond.

*Bicycle/pedestrian mobility*

5. ERT concurs with the community planning recommendation for a 10-foot wide multi-use trail adjacent to Cascades Parkway and good internal pedestrian mobility. As shown on the attached photo, the Cascades Parkway frontage is already heavily used by pedestrians and bicyclists.
6. ERT further recommends that the office building design include bicycle racks for parking and shower facilities in the restrooms of the office buildings, in order to promote commuting of workers by bike or foot.



*Innovative building design*

7. ERT recommends a commitment by the applicant to pursue Leadership in Energy and Environmental Design (LEED) certification for this site, based on either "new construction" or "core and shell" criteria. Staff notes that recent commercial rezoning applications are applying for LEED certification, including East Gate I, II, and III.

A-27

Page 3

ZMAP-2006-0025 and SPEX-2006-0031

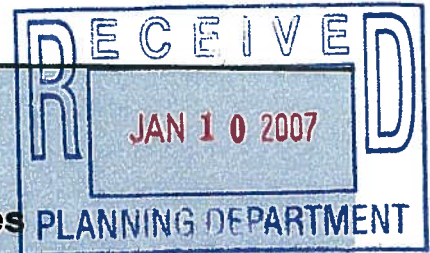
06/27/07

Due to the scope of the comments provided, staff requests an opportunity to comment on the subsequent submission of this application, and staff is available for any follow-up meetings. Please contact me if you need any additional information.


A-28



**County of Loudoun**  
**Office of Transportation Services**



**MEMORANDUM**

**DATE:** January 9, 2007  
**TO:** Stephen Gardner, Project Manager, Department of Planning  
**FROM:** Art Smith, Senior Coordinator, Planning and Development   
**SUBJECT:** ZMAP 2006-0025 and SPEX 2006-0031 - Cascades Center  
First Referral

**Background**

The applicant is seeking a Zoning Map Amendment to convert a parcel from the PD-IP under the 1972 Zoning Ordinance to the Revised 1993 Zoning Ordinance, and a Special Exception to permit office use in the PD-IP Zoning District. The product being sought is construction of approximately 92,000 square feet of office condominiums. The project site is bounded on the north by Maries Road and on the east by Cascades Parkway. Please see Attachment 1, Project Vicinity Map. In its consideration of this application, OTS reviewed project plats dated September 27, 2006, the applicant's Statement of Justification, and a traffic study dated October 2006 prepared by MCV Associates.

**Existing, Planned and Programmed Roads**

Cascades Parkway, Route 637, has been constructed along the site's frontage as a four-lane median divided road in a 120-foot right-of-way. This is its ultimate section. Maries Road (Route 638) is classified as a local road and as such, no typical section is specified in the Countywide Transportation Plan (CTP). It has been constructed as a four lane undivided road, U4 section, between Cascades Parkway and the west entrance of the developed parcel to the west. Past the point it becomes an unpaved road. Currently, the intersection of Cascades Parkway and Maries Road is not signalized.

**Existing and Forecasted Traffic Volumes**

Existing (September 12 and 13, 2006) peak hour and daily traffic volumes are shown on Attachment 2. Daily traffic volumes were 12,180 on Nokes Blvd, 6,880 on Potomac View Road and 25,590 on Cascades Parkway between Nokes Blvd and Maries Road. The daily volume was 900 on Maries Road. Existing service levels are shown on

Attachment 3. All LOS was acceptable except for the Maries Road approach to Cascades Parkway which was LOS E during the PM peak hour.

Site generated trips for peak hours are shown in Attachment 4.

Two alternatives were analyzed for projected buildout year 2009. Alternative A has access to the site via an entrance on Maries Road only. Alternate B adds a right in/right out only. Total peak hour and daily forecasted 2009 traffic volumes for Alternate A are shown on Attachment 5 and for Alternative B on Attachment 6. For either alternative volumes on Maries Road will increase substantially. That will require installation of a traffic signal at the intersection of Maries Road and Cascades Parkway. Forecasted service levels for 2009 for both alternatives are shown on Attachment 3. LOS F is forecast for the Maries Road approach to its intersection with Cascades Parkway in the PM peak hour. This can likely be resolved by an allocation of additional green cycle time to this movement and less green cycle time to Cascades Parkway where thru movements are forecasted to be LOS A.

### **Issues**

1. The Countywide Transportation Plan (CTP) calls for Cascades Parkway to be a controlled access road. That policy prohibits a right in/right out entrance to a single lot. Therefore, Alternate A, access only by Maries Road only, should be implemented.
2. No additional road expansion is required to adequately accommodate this application.
3. A traffic signal will need to be provided at the intersection of Maries Road and Cascades Parkway. Please note there are two other ZMAPs currently in process on Maries Road. An equitable solution would be to have the three projects split the cost of the signal. The percentage breakdown would be directly related to the amount of peak hour traffic generated by the three projects. The estimated total cost of the signal warrant study and signal design and installation is \$210,000. OTS will calculate this applicant's appropriate share as the other two applications move forward. OTS will manage the warrant study, signal design, and installation.

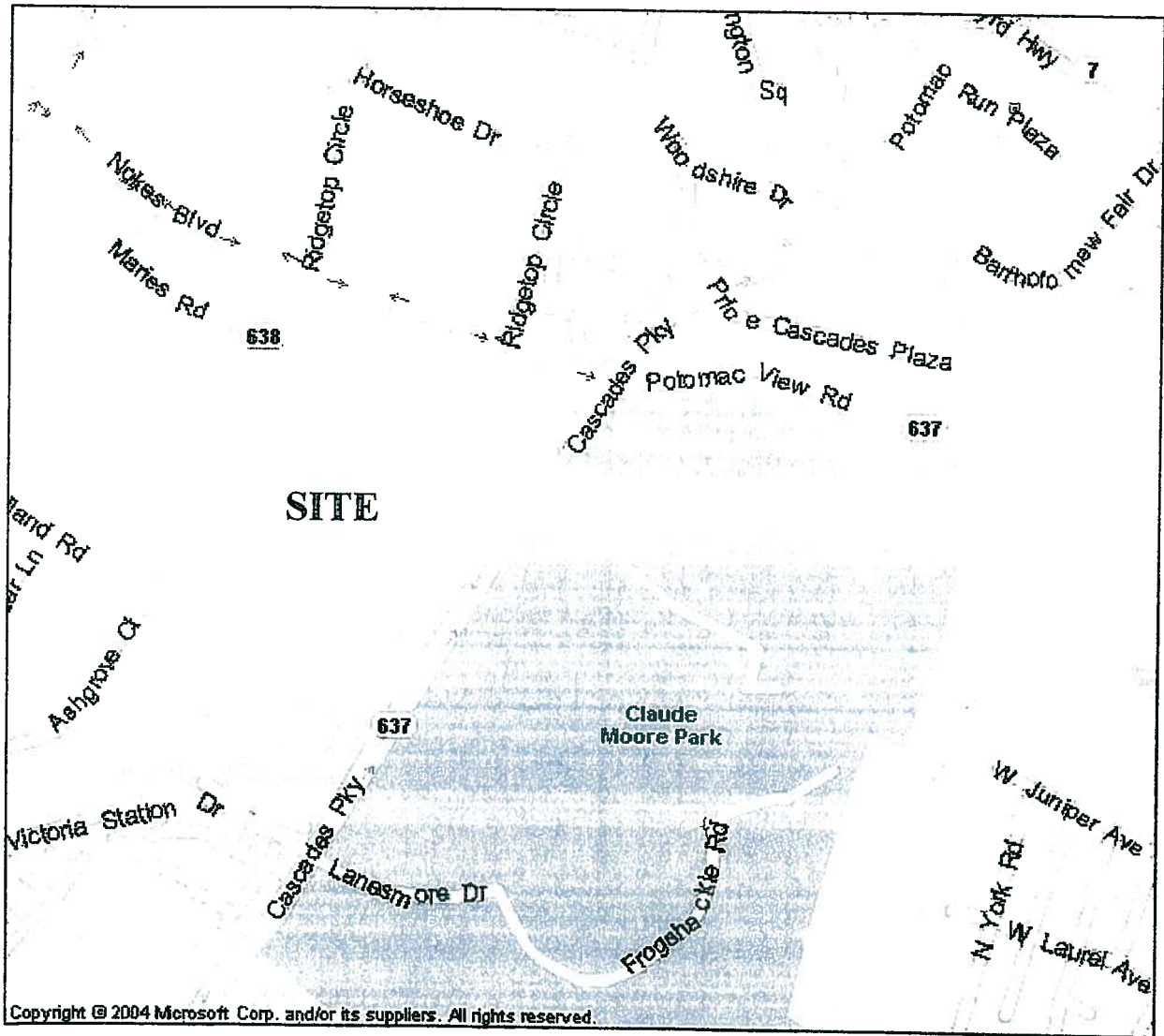
### **Conclusion**

Provided Alternate A is selected and a traffic signal is installed at the intersection of Maries Road and Cascades Parkway there are no transportation issues which would preclude approval of this application.

AJS/Ilm

cc: Andy Beacher, Assistant Director/Highway Division Chief

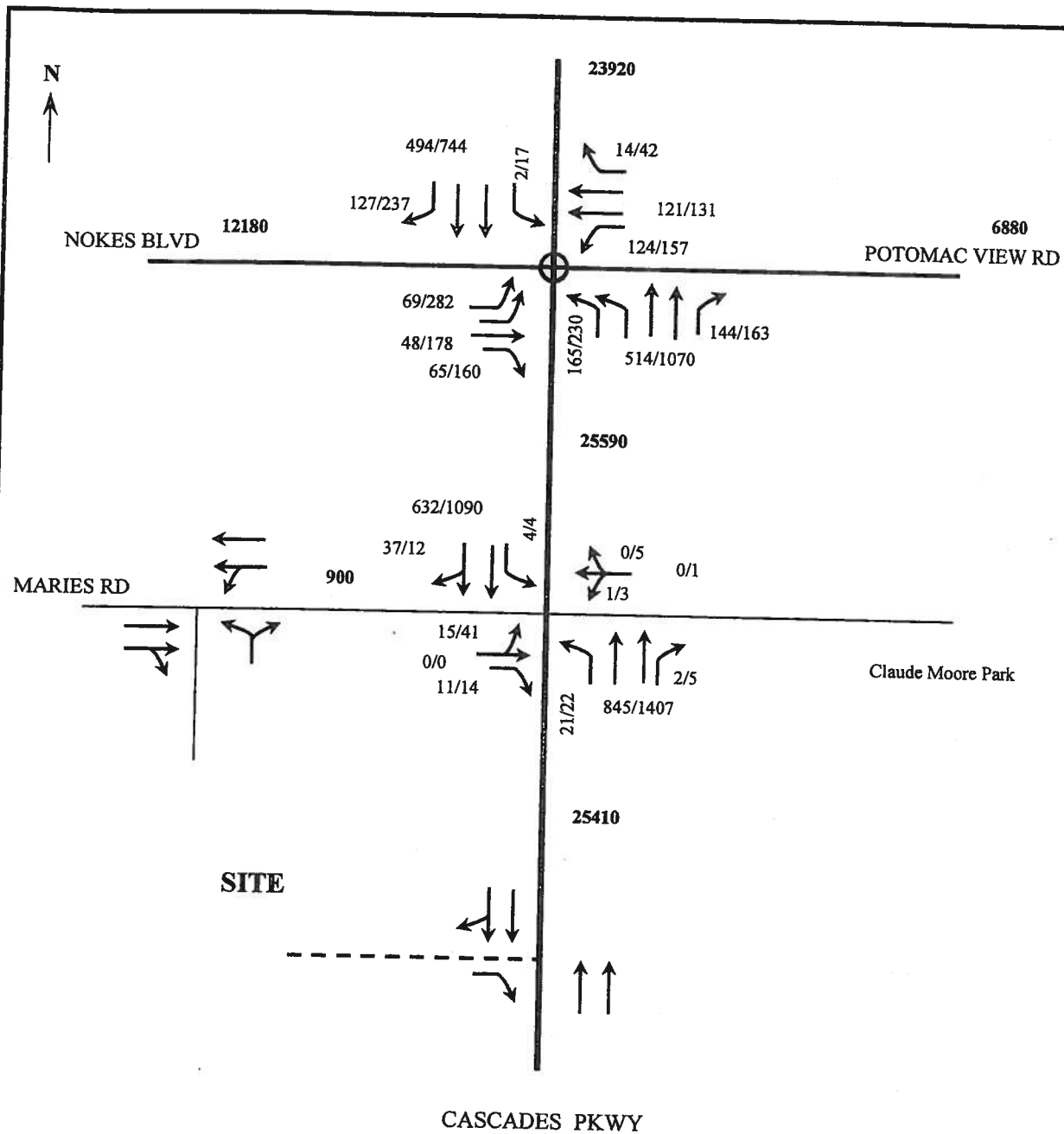
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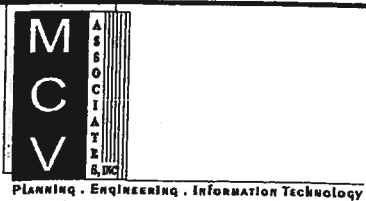
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Site Location

Exhibit 1



○ - Signalized Intersection  
 00/00 - AM/PM Peak Hour Volumes



AM and PM Peak Hour Volumes  
 Existing Conditions

Exhibit 2

INTERSECTION/CONDITION	Existing		Background 2009		Background 2009		Total 2009 Alternative A		Total 2009 Alternative B	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Cascades Pkwy/Marles Road										
EB Approach	LOS C 16.1 Sec	LOS E 37.4 Sec	LOS C 21.1 Sec	LOS F 163.3 Sec	LOS D 29.2 Sec	LOS F 415.5 Sec	LOS D 31.1 Sec	LOS F 469.8 Sec		
WB Approach	LOS C 22.6 Sec	LOS D 29.0 Sec	LOS C 23.8 Sec	LOS E 38.9 Sec	LOS D 29.5 Sec	LOS E 44.0 Sec	LOS D 29.7 Sec	LOS E 41.6 Sec		
Cascades Pkwy/Nokes/Potomac										
EB Approach	LOS B 16.6 Sec	LOS C 21.4 Sec	LOS B 17.3 Sec	LOS C 27.5 Sec	LOS B 18.8 Sec	LOS C 29.7 Sec	LOS B 18.8 Sec	LOS C 29.7 Sec		
WB Approach	LOS C 35.0 Sec	LOS C 28.8 Sec	LOS D 41.2 Sec	LOS D 44.0 Sec	LOS D 54.4 Sec	LOS D 29.7 Sec	LOS D 54.4 Sec	LOS D 29.7 Sec		
NB Approach	LOS C 31.7 Sec	LOS C 27.8 Sec	LOS C 33.9 Sec	LOS C 30.8 Sec	LOS C 33.8 Sec	LOS C 31.1 Sec	LOS C 33.8 Sec	LOS C 31.1 Sec		
SB Approach	LOS B 11.2 Sec	LOS C 20.1 Sec	LOS B 11.3 Sec	LOS C 25.1 Sec	LOS B 11.4 Sec	LOS C 29.5 Sec	LOS B 11.4 Sec	LOS C 29.5 Sec		
	LOS B 12.1 Sec	LOS B 16.6 Sec	LOS B 12.2 Sec	LOS B 17.1 Sec	LOS B 12.6 Sec	LOS B 17.3 Sec	LOS B 12.6 Sec	LOS B 17.3 Sec		
Marles Road/Site Driveway		N/A	N/A	N/A						
WB Approach					LOS A 7.6 Sec	LOS A 7.8 Sec	LOS A 7.5 Sec	LOS A 7.8 Sec		
NB Approach					LOS A 8.5 Sec	LOS A 9.8 Sec	LOS A 8.5 Sec	LOS A 9.5 Sec		
Cascades Pkwy/Site Driveway		N/A	N/A	N/A						
EB Approach					N/A	N/A	LOS B 11.2 Sec	LOS C 17.1 Sec		
Cascades Pkwy/Marles Rd(signal)		N/A	LOS A 3.1 Sec	LOS A 8.5 Sec	LOS A 4.2 Sec	LOS C 21.6 Sec	LOS A 3.9 Sec	LOS C 20.5 Sec		
EB Approach			LOS E 60.2 Sec	LOS D 40.0 Sec	LOS E 75.3 Sec	LOS F 142.3 Sec	LOS E 72.8 Sec	LOS F 148.2 Sec		
WB Approach			LOS D 54.8 Sec	LOS C 26.4 Sec	LOS D 54.8 Sec	LOS C 29.1 Sec	LOS D 54.8 Sec	LOS C 29.1 Sec		
NB Approach			LOS A 1.7 Sec	LOS A 6.2 Sec	LOS A 1.7 Sec	LOS A 6.2 Sec	LOS A 1.7 Sec	LOS A 6.2 Sec		
SB Approach			LOS A 1.6 Sec	LOS A 5.4 Sec	LOS A 1.6 Sec	LOS A 5.4 Sec	LOS A 1.6 Sec	LOS A 5.4 Sec		



## Comparison of Levels of Service

Exhibit – 9

### Trip Generation

#### Background

ITE CODE	Land Use	AM			PM		
		In	Out	Total	In	Out	Total
412	County Park	3	1	4	9	12	21
110	Light Industrial	389	53	442	58	422	480
	Total	392	54	446	67	434	501

#### Site

ITE CODE	Land Use	AM			PM		
		In	Out	Total	In	Out	Total
710	Office	151	21	172	31	149	180

### Vehicle Trip Generation Rates

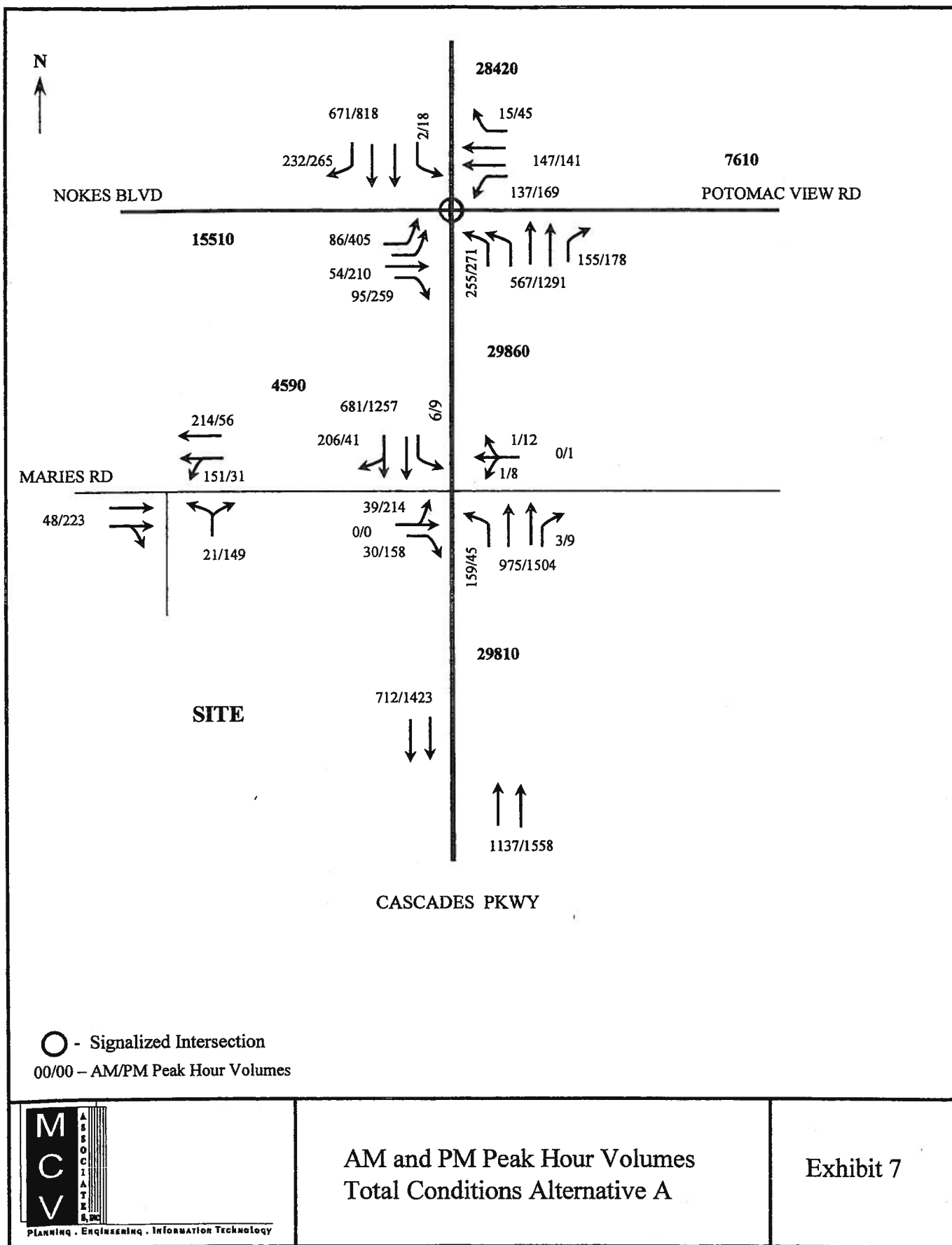
ITE CODE	Land Use	Size	AM Peak Hour			PM Peak Hour		
			Trip Rate	In	Out	Trip Rate	In	Out
412	County Park	350 Acres	0.01 (X)	80%	20%	0.06 (X)	41%	59%
110	Light Industrial	450,000 Sq Ft	$T=1.18X-89.28$	88%	12%	$T=1.43X-163.42$	12%	88%
710	Office	92000 Sq. Ft.	$Ln=0.8*Ln(X)+1.55$	88%	12%	$T=1.12X+78.81$	17%	83%



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Trip Generation Rates and Trips

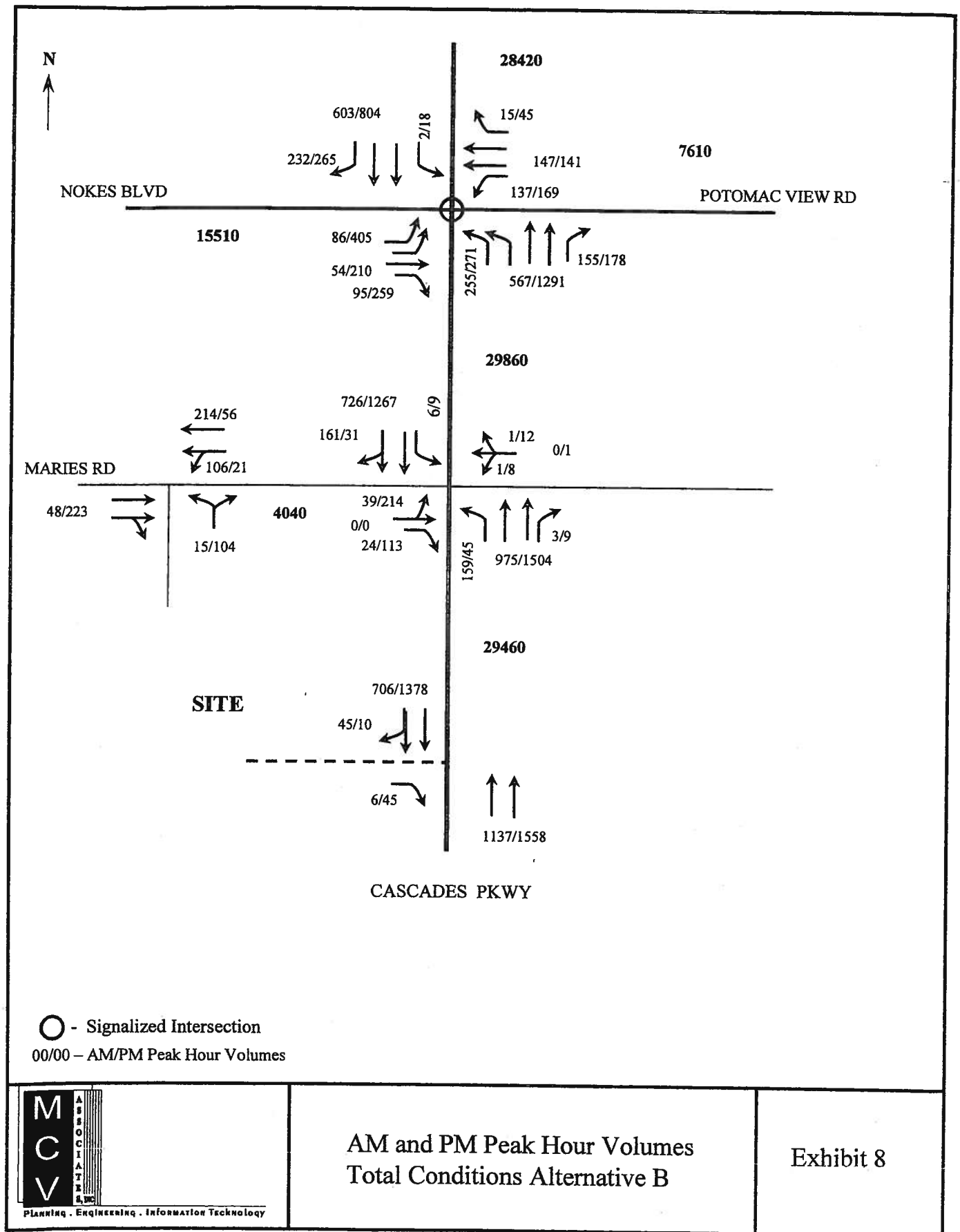
Exhibit - 3



AM and PM Peak Hour Volumes  
 Total Conditions Alternative A

Exhibit 7





AM and PM Peak Hour Volumes  
Total Conditions Alternative B

Exhibit 8



# COMMONWEALTH of VIRGINIA

DAVID S. EKERN, P.E.  
COMMISSIONER

## DEPARTMENT OF TRANSPORTATION

14685 Avion Parkway  
Chantilly, VA 20151  
(703) 383-VDOT (8368)

January 25, 2007

Stephen Gardner, Project Manager  
County of Loudoun  
Department of Planning  
1 Harrison Street, S.E.  
P.O. Box 7000  
Leesburg, Virginia 20177-7000



Re: Cascades Center  
Loudoun County Application Number ZMAP 2006-0025, SPEX 2006-0031

Dear Mr. Gardner:

We have reviewed the above noted application as requested in your December 13, 2006 transmittal and we offer the following comments.

1. The following comments from our Traffic Engineering Section relating to the Traffic Impact Analysis need to be addressed.
  - a. Show speed limits on all existing roadways.
  - b. Include weekday ADT in trip generation table.
  - c. Need to provide a complete signal warrant study. The signal warrant study needs to include alternatives other than a traffic study.
  - d. Provide LOS and delay for each lane group in Exhibit 9.
2. Assuming the traffic signal is warranted, the County needs to ensure the funding for the design and installation of the signal is obtained from this development and the other sites on Maries Road.

ATTACHMENT 1 e.

3. With the additional traffic generated from development of this site and others on Maries Road, a right turn lane warrant analysis should be done for southbound Cascades Parkway to Maries Road.
4. As we have noted in recent reviews of other applications on Maries Road, the unimproved portion of Maries Road west of the site and the connection to the Dulles Town Crossing was allowed to remain as a temporary measure to maintain some access to the west for the Maries Road property owners. It was not intended to serve the long term needs of future development on Maries Road. If new land uses continue to be approved on Maries Road, the western portion should either be improved, through traffic restricted, or disconnected so that all traffic accesses from Cascades Parkway.

If you have any questions, please call me at (703) 383-2041.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. B. Walker', with a long horizontal line extending to the left.

Thomas B. Walker  
Senior Transportation Engineer



LOUDOUN COUNTY, VIRGINIA  
**Department of Fire, Rescue and Emergency Management**

803 Sycolin Road, Suite 104 Leesburg, VA 20175  
Phone 703-777-0333 Fax 703-771-5359



## MEMORANDUM

**To:** Stephen Gardner, Project Manager  
**From:** Maria Figueroa Taylor, Fire-Rescue Planner  
**Date:** January 17, 2007  
**Subject:** Cascades Center  
ZMAP 2006-0025 & SPEX 2006-0031

Thank you for the opportunity to review the above captioned application. The Fire and Rescue Planning Staff, in agreement with the Fire Marshal's Office, has no objection to the application as presented.

Staff did not receive comments from the first due fire-rescue company by the requested due date. If you have any questions or need additional information, please contact me at 703-777-0333.

c: Project file

ATTACHMENT 1 f.





880 Harrison Street, SE • P.O. Box 4000 • Leesburg, Virginia 20177-1403 • [www.lcsa.org](http://www.lcsa.org)

January 11, 2007

Mr. Stephen Gardner  
Department of Planning  
1 Harrison Street, S.E.  
P. O. Box 7000  
Leesburg, Virginia 20177-7000



Re: **ZMAP-2006-0025 and SPEX-2006-0031, Cascades Center**

Dear Mr. Gardner:

The Sanitation Authority has reviewed the referenced Zoning Map Amendment Petition and Special Exception applications and offers the following comments:

1. On sheet 9 of the Special Exception Plan and Zoning Map Amendment:
  - a. A 2-foot-wide LCSA waterline easement is shown along Maries Road. The minimum easement width for this type of LCSA easement is 15 feet. Please make the appropriate revisions to the plan.
  - b. Show and label existing water and sanitary sewer facilities to which this project will connect to obtain service.
  - c. Differentiate between existing and proposed easements.
2. Statement of Justification, Item L, page 4 of 6. This item states the Authority is planning to extend a 10-inch water main along Cascades Parkway. The proposed water main is 12 inches, not 10. This application is not part of the LCSA project, and the applicant may be required to build the portion of the water main extension along the Cascades Parkway frontage of the subject property.
3. The applicant will be required to submit a Utility Extension Request (UER) to the Authority for review and approval prior to the start of construction activity. Detailed comments on the design of the public water and sanitary sewer facilities will be addressed during the UER process.
4. Should offsite easements be required to extend public water and/or sanitary sewer to this site, the applicant shall be responsible for acquiring such easements and dedicating them to the Authority at no cost to the County or to the Authority.

ATTACHMENT 1 **9.**

Dale C. Hammes, P.E.  
General Manager/Treasurer

Richard C. Thoesen, P.E.  
Deputy General Manager

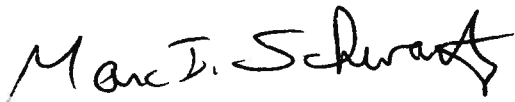
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Mr. Stephen Gardner  
ZMAP-2006-0025 & SPEX-2006-0031, Cascades Center  
January 11, 2007  
Page 2

5. The Authority offers no objection to the uses proposed for this site.

Should you have any questions, please do not hesitate to contact me.

Sincerely,



Marc I. Schwartz, P.E.  
Manager, Department of Land  
Development Programs

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Environmental Health  
Phone: 703 / 777-0234  
Fax: 703 / 771-5023

## Loudoun County Health Department


P.O. Box 7000  
Leesburg VA 20177-7000



Community Health  
Phone: 703 / 777-0236  
Fax: 703 / 771-5393

4 January 2007

**MEMORANDUM TO:** Stephen Gardner, Project Manger  
Department of Planning; **MSC ~~60A~~ 62**

**FROM:**  Matthew D. Tolley  
Sr. Env. Health Specialist  
Division of Environmental Health; **MSC 68**

**SUBJECT:** ZMAP 2006-0025; Cascades Center  
LCTM: 81B ((3)) 7A and 7-10 (PIN 030-10-4490)

The Health Department recommends approval of this application. The proposed development will be served by public facilities and the parcels in question have no on-site sewage disposal systems or wells to be abandoned. The plat reviewed was prepared by Bowman Consulting and was dated 27 September 2006.

Attachments Yes \_\_\_\_ No X

If further information or clarification on the above project is required, please contact Matt Tolley at 771-5248.

MT/JEL/mt  
c:subdygd.ref

ATTACHMENT 1 *h.*



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**COUNTY OF LOUDOUN  
PARKS, RECREATION AND COMMUNITY SERVICES  
REFERRAL MEMORANDUM**

**To:** Stephen Gardner, Project Manager, Planning Department (MSC #62)  
**From:** *KL* Brian G. Fuller, Park Planner, Facilities Planning and Development (MSC #78)  
**Through:** *W* Mark A. Novak, Chief Park Planner, Facilities Planning and Development  
**CC:** Diane Ryburn, Director  
Steve Torpy, Assistant Director  
Su Webb, Park Board, Chairman  
Don Brock, Park Board, Potomac District



**Date:** April 9, 2007

**Subject:** SPEX 2006-0031 and ZMAP 2006-0025 Cascades Center

**Election District:** Potomac **Sub Planning Area:** Sterling

**MCPI #:** 030-10-4490, 030-10-5763, 030-10-7090, 030-10-5867, 030-10-6987

**BACKGROUND:**

The properties are located on the southwest corner of Cascades Parkway (Route 1794) and Maries Road (Route 638) in the Sterling area. The Properties consist of approximately 5.27 acres within the Keynote Employment Policy Area and Potomac Election District. The property is currently zoned PD-IP (Planned Development – Industrial Park) under the 1972 and Revised 1993 Zoning Ordinances. The Applicant proposes to develop these properties as two (2) office condominium buildings. To support this program, the applicant is seeking a Rezoning on Parcel PIN 030-10-4490 to convert the property from the 1972 Zoning Ordinance to the Revised 1993 Zoning Ordinance. In addition, the Applicant is seeking a Special Exception (SPEX) as Office Use is allowed by special exception in PD-IP.

**POLICY:**

The site is governed under the land use policies in the Revised General Plan, the Loudoun County Bicycle and Pedestrian Mobility Master Plan, and the Revised Countywide Transportation Plan (Revised CTP). The subject site is located within the Sterling Community within the Suburban Policy Area. The Planned Land Use Map adopted with the Revised General Plan identifies the subject site as planned for Keynote Employment. Keynote Employment uses are ...office developments that

*feature high visual quality and high trip-generating uses... with the ancillary services necessary to support predominant office use. Keynote Employment area is identified along ...the Route 7 and Route 28 corridors... and are intended to be the location of premier office sites for high-visibility.*

## **PROJECT ANALYSIS:**

The Applicant proposes to develop the Properties as two (2) office condominium buildings. The office development is part of an overall office/commercial development vision for the Route 7 and Route 28 corridors. It is intended that this development generate tax revenue and provide more jobs for the County. In addition, providing a traffic light at the intersection of Cascades Parkway and Maries Road will improve traffic flow and safety in the area. The proposed development is also located across from, and shares an intersection on Cascades Parkway with the entrance to the Visitor Center at Claude Moore Park.

## **COMMENTS:**

With respect to Parks, Recreation and Community Services (PRCS) we offer the following comments and recommendations:

1. No proffers were submitted with this application. Please provide proffers for review.
2. The Revised General Plan currently states in Chapter 3: Fiscal Planning and Public Facilities, General Public Facilities Policies, #8, page 3-9:  
*The County encourages the co-location of County facilities where they are feasible and can function effectively as multi-purpose community facilities (e.g. community meeting space, shared parking, athletic fields, and integrated design).*

The Fiscal Impact Committee (FIC) has re-endorsed the current Revised General Plan policy as contained in Chapter 3, and is currently looking at public/private opportunities for co-location of public/private facilities. Commercial, office and industrial developments based on their zoning are potential areas where facilities such as athletic fields (lighted) could be co-located. The opportunity for shared parking and access to existing utilities (water, sewer and electricity) could provide additional cost savings. Commercial/retail developments may also benefit from increased pedestrian and vehicular traffic from patrons of active recreational facilities. Staff asks the Applicant to consider an opportunity for peak overflow parking from Claude Moore Park for the current proposed development.

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3. The Loudoun County Bicycle and Pedestrian Mobility Master Plan (BPMMP), Chapter 4(B), Land Development, Land Development Policy 6, states that *"All land development applications shall provide bicycle and pedestrian access through the development in various directions, so as to prevent it from becoming a barrier between other trip origins and destinations in the community."* In addition, BPMMP Land Development Policy 7, *"All land development applications shall provide a sufficient number of bicycle and pedestrian access points to ensure efficient connections to and from the various activity nodes within the development and linkages to existing or future adjacent developments."* The applicant should demonstrate to Staff, the Planning Commission, and the Board of Supervisors how bicycle and pedestrian access to and through the development and connections to adjacent developments are being met.
4. In addition to Comment 3, The Loudoun County Bicycle and Pedestrian Mobility Master Plan (BPMMP), Chapter 5, Recommended Bicycle and Pedestrian Network, states that Cascades Parkway and Church Road are to be developed as a Primary Connecting Corridor between the W&OD Trail and Algonkian Regional Park. Additionally, the shoulder along Cascades Parkway is a heavily used walking corridor between the residential neighbors to the south of Claude Moore Park and the commercial centers to the north and for general park circulation (see *Figure 1*). PRCS encourages the Applicant to proffer a 10-foot wide, paved shared bicycle/pedestrian path on Cascades Parkway along the frontage of Claude Moore Park, to connect the two main park entrances.
5. The Loudoun County Bicycle and Pedestrian Mobility Master Plan (BPMMP), Chapter 4(A), Roadway Planning and Design Policy, Bicycle Amenity Policy 1; states that *"The County shall... ensure that adequate and appropriate bicycle parking is located at places of employment, within shopping centers and districts, at transit centers and park and ride lots, parks, at public buildings and at other appropriate public facilities."* The applicant should demonstrate to Staff, the Planning Commission, and the Board of Supervisors how bicycle accommodations are being met.
6. PRCS is concerned with the project's location to the intersection of Cascades Parkway and Maries Road, and its proximity to the recreational uses at Claude Moore Park and Visitor Center. The Loudoun County Bicycle and Pedestrian Mobility Master Plan (BPMMP), Chapter 4, Bikeway and Walkway Facility Types, Intersection Treatments, recommends *"a wide variety of features, including high-visibility crosswalks, wheelchair ramps, curb extensions, median refuges, countdown signals, in-median safety bollards, mid-block crossings, and more."*

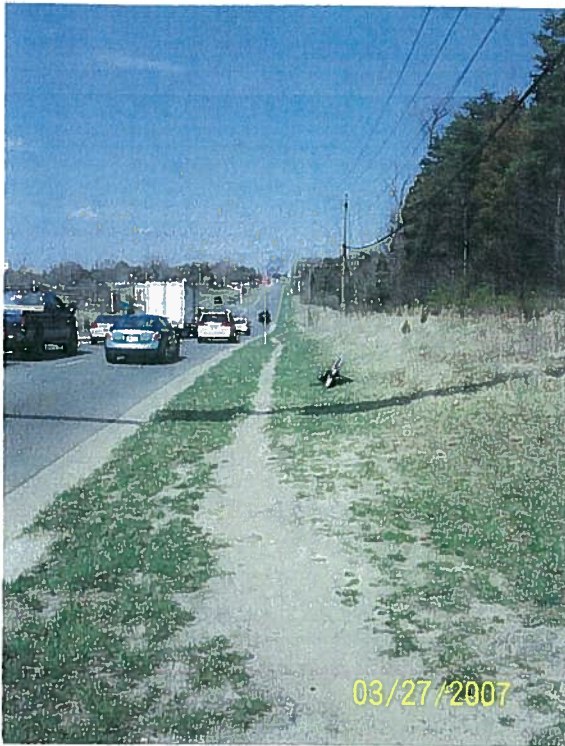
The Office of Transportation Services has evaluated the intersection, and has requested that the Applicant contribute an appropriate share towards the study and installation of a traffic signal with the two other ZMAP applications on Maries Road. As part of the appropriate contribution towards a traffic signal, PRCS recommends the Applicant provide an intersection treatment at Cascades Parkway and Maries Road, to assist pedestrian access to the Claude Moore Park Visitor Center.

7. In addition to Comment 6, when the traffic signal is installed at the intersection of Cascades Parkway, Maries Road, and the entrance to the Claude Moore Park Visitor Center, it will alter existing park directional signage along southbound Cascades Parkway. Currently, the sign references the entrance to the active portion of the park at the "second traffic light" (see *Figure 2*). When the additional signal is added, PRCS requests the Applicant to provide the funding for revising the existing sign or provide a revised sign.

#### CONCLUSION:

PRCS has identified above, outstanding issues that require additional information to complete the review of this application.

If you have any questions or concerns regarding these comments, please do not hesitate to contact me personally via phone at 571-258-3251, or via e-mail at [brian.fuller@loudoun.gov](mailto:brian.fuller@loudoun.gov). You may also contact Mark Novak via phone at 703-737-8992, or via e-mail at [mark.novak@loudoun.gov](mailto:mark.novak@loudoun.gov). I look forward to attending any meetings or work sessions to offer PRCS support, or to be notified of any further information regarding this project.



**Figure 1: Foot path along the frontage of Claude Moore Park on Cascades Parkway**



**Figure 2: Claude Moore Park directional sign on southbound Cascades Parkway to be revised with the installation of a new traffic signal**

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